

THE EUGENICS REVIEW

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*"Eugénics is the science which deals with
all influences that improve the inborn
qualities of a race; also with those that
develop them to the utmost advantage."—
Sir Francis Galton, 1904.*

NOTES OF THE QUARTER

The Pope's Discourse

ON October 29th, at Castel Gandolfo, the Pope delivered a discourse to the Italian Catholic Union of Midwives. A single sentence in this long address, which runs into some 9,000 words, was seized on by some newspapers and publicized so as to provoke a storm of unusually stupid controversy wherein many people who should have known better have participated. Rarely can the Press have made such an exhibition of itself.

We have before us two translations of the Pope's address, which was delivered in Italian. The first to reach us was published by the *Birmingham Post* on November 8th and 9th; the second, provided by the Pontifical Court Club, was available ten days later. The first version, though clumsier, may be the more literal; the second version is the more succinct and, from the literary standpoint, better turned. The latter gives the impression of having been carefully made. In only one matter of substance (mentioned below) do the two versions disagree. These documents clearly show that

the Pope's discourse, far from being reactionary or even novel, discloses a lively appreciation of contemporary events and, from a humanistic standpoint, can be regarded as both realistic and progressive.

The Pope is speaking to Italian midwives about four aspects of their "apostolate" or religious mission. The reader infers that there is a background of events which made the Pope feel that this address was necessary. Italy, as is well known, is suffering acutely from pressure of population, and opportunities to emigrate are eagerly sought. If emigration is stopped or blocked, and if the population continues to increase, the country will find itself in a serious predicament. The economic difficulties which now exist have aggravated the problems confronting the parents of numerous children, and have cheapened the values of the family. The course which must be steered is thus a difficult one. Doctrine as laid down by papal predecessors must be respected and conserved; everything possible must be done for children already born and for families which already exist; but no unnecessary encouragement must be given to the expansion of a population which is already inconveniently large. The reader is further led to suppose—and the supposition is intrinsically probable—that an increase is suspected in the practice of abortion which is sometimes aided and abetted—for there are black sheep in every profession—by a minority of midwives.

This is the probable situation. How does the Pope deal with it? He takes the midwives into his confidence, and assigns to them certain professional and moral duties which, in effect, confer on them important responsibilities. These responsibilities are described in terms of four aspects of the midwife's apostolate which will be serially considered.

The first aspect is the midwife's professional competence and personal influence.

Why is your service called for? Because people are convinced that you know your business. . . . Your advice and help are expected . . . to be in keeping with the latest developments both in theory and in fact of the profession in which you specialize. . . . Your intervention in the moral and religious field will be the more effective if, by your superior technical ability, you command respect. . . . Esteemed and appreciated as you are for your personal conduct, no less than for your knowledge and experience, you will find the care of mother and child will be readily confided to you, and, perhaps even without you yourselves realizing it, you will exercise a profound, often silent, but efficacious apostolate of a living Christianity.

In a sentence, the first principle of the midwife's apostolate is that she must possess professional competence and moral integrity. It is the equivalent of the Hippocratic principle which should guide doctors.

The second aspect of the midwife's apostolate is zeal to uphold the value and inviolability of human life. It is in this section that occurs the single sentence which provoked the dreary controversy which has filled the Press. It reads :

To save the life of the mother is a very noble end ; but the direct killing of the child as a means to that end is not lawful.

There is nothing new in this statement of principle, which has been, from the present Pope's standpoint, irrefragably established by the pronouncements of his predecessors. The Pope is here condemning the practices of infanticide and abortion which are in no circumstances permissible and against which midwives should take an uncompromising stand.

The direct destruction of the so-called " life without value," whether born or yet to be born, such as was practised very widely a few years ago, cannot in any way be justified.

There may be a reference here to Nazi practices in extermination camps ; also to the theory that euthanasia should be applied to infants with congenital defects.

But the Pope proceeds to say that such " defensive action " is not the most important part of the midwife's mission.

Instil into the minds and hearts of the mother and father the esteem and joyous desire of the new-born child so that it is welcomed with love from the moment of its birth. . . . Hasten to lay the new-born child in the arms of the father. . . . Your apostolate, however, is concerned above all with the mother. . . . It falls to you, by your bearing and manner of acting rather than by words, to make the young mother realise the greatness, the beauty, the nobility of that life which is now awakening, and which is being shaped and quickened in the womb, the life that is born to her, that she carries in her arms and nourishes at her breast.

The Pope goes on to say that, in the context of today, there is need for the encouragement and moral support which the midwife can give :

Unfortunately, cases are not rare in which even a cautious reference to children as a " blessing " is enough to provoke a downright denial and even derision. *Far more frequently* [our italics] in thought and in words the attitude of considering children a heavy burden predominates.

The Pope concludes the paragraph which contains this passage by asserting that there are conditions of *force majeure* in which children should be avoided, but that the existence of such conditions should not lead to a general disparagement of family values. His words are :

Should there be conditions and circumstances in which parents, without violating the law of God, can avoid the " blessing " of children, such cases of *force majeure*, however, by no means authorize the perversion of ideas, the disparaging of values, the belittling of the mother who has had the courage and the honour to give life.

The section ends with two paragraphs about baptism, wherein the Pope says :

Undoubtedly this obligation is binding in the first place on the parents ; but in urgent cases, where there is no time to lose, or it is impossible to obtain a priest, yours is the sublime duty of administering Baptism.

The third aspect of the midwife's apostolate consists in " helping the mother in the prompt and generous fulfilment of her marital duties." The Pope here deals with the midwife's duties in respect of abortion and of birth control by means of the " agenesical " or " safe " period ; he reaffirms his condemnation of sterilization (thera-

peutic as well as eugenic), and of *coitus interruptus* and appliance methods of birth control; and he confirms that, when there are valid reasons against pregnancy and when misgivings are entertained about the reliability of the "safe" period, "there is only one thing to do, and that is, to abstain from any complete use of the natural faculty." Total abstinence is enjoined.

Of the midwife's duty to refuse to assist in abortions, the Pope says :

The urgent object of your apostolate will be to strive to sustain, to reawaken and stimulate the mother's instinct and the mother's love. . . . Unfortunately, however, . . . the child is often not wanted; worse still, its coming is often dreaded. In such conditions how can there be a ready response to the call of duty? Your apostolate in this case must be both powerful and effective. . . . You may come forward unhesitatingly where you are asked to advise and help in the bringing forth of new life, to protect it and set it on its way towards full development. But, unfortunately, in how many cases are you rather called upon to prevent the preservation and the procreation of this life, regardless of the precepts of the moral order? To accede to such requests would be to abuse your knowledge and skill by becoming accessories to an immoral act; it would be the perversion of your apostolate.

Of the midwife's duty to advise on the use of the "safe" period, the Pope said :

You are expected to be well-informed from the medical point of view, of this well-known theory and of the progress which can still be foreseen in this matter; and moreover, your advice and help are expected to be based not on simple popular publications but on scientific facts and the authoritative judgment of conscientious specialists in medicine and biology. It is your office and not that of the priest to instruct married people by private consultation or through serious publications on the medical and biological aspect of the theory, without at the same time allowing yourselves to be drawn into discussions which are neither right nor becoming. (These are the words of the Pontifical Court Club's translation which differs from that given in the *Birmingham Post*. The latter reads : "being careful not to allow yourselves to be drawn into any form of propaganda, however rightful or proper.")

The Pope thus pays a compliment to Italian midwives by imposing on them such important responsibilities. (Here the doctor rather than the midwife would advise and

guide on these matters.) The Pope then proceeds to discuss two wrongful uses of the "safe" period. It is wrong, firstly, for a couple, in the absence of strong moral grounds, to embark on marriage with the intention of continuously using the "safe" period in order that their marriage may be wholly childless; and it is wrong for one partner to insist, against the will of the other, on limiting intercourse to that period. These points having been established, the Pope goes on to make an important reservation.

The general principle can now be stated that the fulfilment of a positive duty may be withheld should grave reasons, independent of the goodwill of those obliged to it, show that such fulfilment is untimely, or make it evident that it cannot equitably be demanded by that which requires fulfilment—namely the human race.

It does not seem far-fetched to suppose that the Pope, when referring here to the "equitable demands of the human race," had in mind not only medical considerations arising from the woman's possible unfitness for maternity but also quantitative considerations, perhaps connected with over-population, and even qualitative considerations of a eugenic character. Indeed, he goes on to declare :

Serious reasons, often put forward on medical, eugenic, economic and social grounds, can exempt from that obligatory service even for a considerable period of time, even for the entire duration of the marriage. It follows from this that the use of the infertile periods can be lawful from the moral point of view and, in the circumstances which have been mentioned, it is indeed lawful.

Surely this is a noteworthy passage. In no papal declaration of which we are aware have eugenic indications for refraining from parenthood been more clearly recognized.

Indeed, the third aspect of the midwife's apostolate as here expounded, combined with the first aspect which enjoined the highest degree of professional competence, can be inferred to mean that the Pope expects Italian midwives to be equipped and prepared to give advice on the use of the safe period when pregnancy is made undesirable by "serious reasons" of a medical, eugenic,

economic and social character. If the term "birth control" be used, as most non-Catholic people use it, to include the use of the safe period, the Pope's address on October 29th might be regarded as providing the beginnings of a birth-control service (albeit explicitly restricted by Catholic moral principles) for all Roman Catholic countries which have midwifery services.

The fourth and last aspect of the midwife's apostolate concerns "the right order of values and the dignity of the human person." A difficult course is plotted and followed involving three statements of value. The first is that the primary end of marriage, in nature's plan, is procreation; the provision of sexual satisfaction to the two partners of the marriage, while also important and part of nature's plan, is secondary to the other. Next it is declared that the provision of sexual satisfaction, though a secondary aim of marriage, is sufficiently important not to be dispensed with: hence artificial insemination (AIH), which fulfils the primary aim of marriage but frustrates the secondary, is condemned. The third statement of values is that the function of procreation, though, as remarked, the primary end of marriage, need not necessarily be exercised: a human being who renounces his generative faculty suffers no less of dignity: on the contrary a "free renunciation made for the kingdom of God is an act of high virtue which is within the range of few. Of them it has been said "All men take not this word, but they to whom it is given." This quotation from St. Matthew is followed by a remarkable passage the meaning of which is not entirely clear, at least in translation, though the language was doubtless carefully chosen:

It is therefore a mistake and a departure from the way of moral truth to exalt too highly the generative function even in its right moral setting of married life. Again, it brings the risk of an error of understanding and of misguided affection which hinders and stifles good and noble feelings, especially with young people who have as yet had no experience and are unaware of life's snares. After all, what normal person, healthy in mind and body, would want to belong to the number of those lacking character and spirit?

The *Birmingham Post's* translation of this passage reads:

The extolling above measure of the generative function, even in its rightful and moral setting within the married state, and which is so often to be heard in these days, is therefore not only an error and an aberration; it involves the dangers of a diversion of intellect and affection tending to hinder and suffocate selflessness and high ideals, especially in the case of youth, as yet lacking in experience and unprepared for the disillusionment which life brings. What normal man, sound in mind and body, would wish to belong to the ranks of those wanting in character and mentally deficient?

What does this passage mean and what is to be inferred from it? There may be implications, clear in the original Italian but lost in translation. To us it looks like a plea for moderation and restraint. It seems to imply a rejection, perhaps even a castigation, of the view that the merit of a married couple is proportionate to the number of children they bring into the world—a standpoint implicit in the U.S.S.R.'s award of medals to mothers of very numerous children, in unseemly competitions in child-bearing (christened by some newspapers "Stork Derbys"), and in what a French writer once called "*le lapinisme intégrale*." The passage may tacitly imply that human beings differ from unthinking animals by being enjoined to exercise powers of self-control in restraining a fertility which, in the context of modern civilization, may easily become excessive. If such an interpretation is justified, the passage acquires an outstanding historical importance.

The Pope's discourse continues with a plea for moderation in the sexual life:

Husband and wife ought to keep within the bounds of moderation. As in eating and drinking, they ought not to give themselves over completely to the promptings of their senses, so neither ought they to subject themselves unrestrainedly to their sensual appetite.

And he concludes with a warning which throws light on the background of this thought. The warning is against hedonism.

"Waves of hedonism," he says, "never cease to roll over the world. They are threatening to overwhelm the whole of married life . . . do your utmost to repel the attack of this refined hedonism . . . nature has given the instinctive

desire for pleasure and sanctioned it in lawful wedlock, not as an end in itself but in the service of life. Banish from your hearts this cult of pleasure, and do your best to stop the spreading of literature which considers it a duty to describe the intimacies of married life under the pretext of giving instruction, guidance and reassurance."

Such are the main points of the Pope's address in which, as will have been seen, there is much sound sense. No Pope is free to make the pronouncements he may privately think fit. He is limited and constrained, as no monarch is constrained, by the *ex cathedra* statements of his predecessors. The area of manoeuvrability is restricted both by dogmas formulated in the past and by the uncertainties of what the future will disclose and require. Much is purposely left vague in order that successors may have room for interpretation and action. No foreseeing Pope will attempt to change course by more than a few degrees.

The declaration of October 29th, far from being reactionary, is thus realistic, bold and, from our standpoint, in the highest degree noteworthy. Eugenics is mentioned, not as a pseudo-science (as it has been mentioned hitherto) but as a respectable subject aligned with medicine. Though the "means" sanctioned by the Pope differ from those which we espouse, there is now a substantial community of ends. A population problem, both in a quantitative and a qualitative aspect, seems to have been recognized, and the outlines of a solution have been drawn.

The intrinsic importance of the Pope's discourse, which is plain for all to see, makes it all the more regrettable that it should have been so misinterpreted and distorted by a sensation-loving Press.

Later Note.—After the above was written, Press reports have reached us of a later address by the Pope, delivered to a congress of the Italian Family Front on November 26th at Castel Gandolfo, which suggest that the controversies provoked by the discourse on October 29th were largely based on a misunderstanding of what the Pope intended. The verbatim translation of the second address is not, at the time of writing, avail-

able, and the passage which follows is taken from a Press report. The Pope is quoted as saying that, in his earlier ruling, he had "purposely used the expression '*direct* attempt on the life of an innocent person,' or '*direct* killing.'" The reason, the Pope is reported to have said, was :

"because if, for example, the saving of the life of the future mother, independently of her pregnant state, should urgently require a surgical act or any other therapeutic treatment which would have, as an accessory consequence, in no way desired or intended but inevitable, the death of the foetus, such an act could no longer be called a direct attempt on an innocent life."

A heavy load of implication is thus carried by the adjective *direct*, and it is perhaps not surprising that the full significance of the word passed undetected. From the passage above quoted, it would seem that the essential feature of an *indirect* (and permissible) killing is its "accessory" character. The death of the foetus must neither be desired nor intended but "inevitable," in the sense that, if it were not brought about, the mother would die and with her the foetus. The dilemma is not "either—or" between mother and child, but rather "one—both" between, on the one hand, the foetus and, on the other, the mother *and* the foetus. But this interpretation is tentative, being based on a Press report and not on the verbatim account.

Sir Francis Galton and the British Association

MRS. GRANT DUFF writes :

The British Association's 113th meeting held in Edinburgh last August proved the very high esteem in which the name of Francis Galton is held by scientists in many fields.

The tributes to the value and variety of his work were most remarkable. Beginning with the Presidential Address, H.R.H. The Duke of Edinburgh said: "In the basic study of living things some of the most important contributions from this country were the pioneer work of Francis Galton and William Bateson in the field of heredity." And again when dealing with psychology,

"the youngest science and the oldest problem," he said: "But probably the most outstanding figure in this country was Galton, whose teaching is widely respected in all psychological laboratories, and who was the first to develop an interest in the mental differences between individuals—a field in which British psychology has made some of its greatest contributions."

Professor C. A. Mace's Presidential Address to the Psychology Section was studded with references to Galton—like jewels in a crown—but it was Galton's grandfather, Erasmus Darwin, of whom "it has been suggested that he had anticipated Freud." Of Galton, Professor Mace says specifically: "It would not be easy to point to any field of interest in psychology today which owes no debt to some or other idea which passed through the mind of this remarkable man. To him we owe the basic concepts of mental testing and the basic statistical procedures by which the data of tests must be dealt with. He was, I believe, the first to use time-sampling techniques for the study of behaviour. He devised a method for the measurement of boredom by counting the number of fidgets per unit of time. His unwitting subjects were the learned members of the Royal Geographical Society (for even there, he dryly remarks, dull memoirs are occasionally read). He anticipated our opinion surveys and our studies of group decisions. He obtained evidence that on certain matters of fact the *vox populi* could be accurate within a limit of about 2 per cent error. To his ingenuity we are indebted for many of the historic pieces in our psychological laboratories. His inventions are outstanding by their simplicity and fitness to their purpose. . . . When his instruments are forgotten he will be remembered by the wealth of his curious observations. The *Inquiries into Human Faculty* and his *Memoirs* can still be recommended to the students as a corrective to the systematic text-books. . . ." Again: "Erasmus Darwin had had a plan for improving the weather: Galton had a plan, called Eugenics, for improving human nature." There are many other references to Galton,

and Professor Mace sums up at the end of his discourse with Galton's own words which are printed on the cover of this REVIEW: "Man is gifted with pity . . . and not less effective."

In the Anthropology Section, Dr. J. C. Trevor, reviewing the position of the subject at the turn of the century, said: "Of quite unparalleled importance in the development of physical anthropology was the application by Sir Francis Galton and Karl Pearson of statistical procedures to its data."

Dr. W. E. Swinton (addressing the Conference of Delegates of Corresponding Societies) on the Scottish Tradition in Natural Science also made many references to the outstanding importance of Galton's work—for instance: "Scotland has produced, besides single brilliant men of science, many families of distinguished scientists. Here we have the ample aid of history, and of Francis Galton, who made a detailed and valuable record of scientists in Britain."

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All these I heard myself: and as there were fourteen Sections speaking simultaneously, there were probably many more.

Galton's *Inquiries into Human Faculty*

THE *Eugenics Society* has sponsored a reprinting of the second edition of the above-mentioned book which was produced in 1907 by J. M. Dent in their Everyman's library. Reprintings were made in 1911, 1919 and 1928, and copies were available until the middle of 1950. The book then went out of print. It can now be obtained (price 6s.) from the *Society*.

From the book's second edition (1907) three chapters were omitted which had been included in the first edition (1883: Macmillan). Their titles are "Enthusiasm," "Possibilities of Theocratic Intervention," and "Objective Efficacy of Prayer." The first two of these chapters, together with a fuller version of the third which, in 1873, appeared as a memoir in the *Fortnightly Review*, have now been separately printed in a pamphlet in the same form as the book,

and may also be obtained (price 1s.) from the *Society*.

In his preface to the second edition, Galton remarked that "the omission of these two chapters, in which I find nothing to recant, improves, as I am told, the general balance of the book." But the *Society's* Council think that these chapters have sufficient general interest today to warrant their publication as a supplement to the second edition.

The *Inquiries*, the best-known of Galton's books, is noteworthy for many reasons among which is the fact that, in its first edition (1883), the word "eugenics" was used for the first time. It was, moreover, as Galton tells us, "the starting-point of that recent movement in favour of National Eugenics which is recognised by the University of London, and has its home in University College."

In the *Inquiries* are assembled thirty-four memoirs on a wide variety of topics wherein, Galton tells us, will be found an underlying unity which reflects his preoccupation with eugenics. The chapter on twins showed how potent genetic factors are in determining the development of many physical and mental qualities (though Galton with typical caution noted that this deduction was only valid within the English middle class from which his sample was drawn). He would have been gratified to know of the more precise methods now available for distinguishing identical and fraternal twins and of the use now made of twin studies in medicine and psychology. The chapters on sensory discrimination show how objective tests of individual differences may be made and that these often disprove commonly held notions, such as that the hands of blind people are especially sensitive. Characteristically enough he extended his tests of the range of hearing to the animals in the Zoo. He would surely have been delighted with the discovery of the sound radar of bats, which enables them to judge accurately the distance of objects at night. The testing of human sensitivity is now a major activity of several University departments. No account of variations in intelligence is given but

reference is made to the description of such difference and their inheritance in *Hereditary Genius*. The chapters on mental images and number forms presage work which has culminated in the investigation of such odd faculties as extra-sensory perception. The attempt to relate physical form to mental type and disease susceptibility, which led to Galton's development of the composite photograph, has also greatly developed. And the chapter on gregariousness as a variable and inherited quality in animals (and by inference in man) led to the fuller discussions by Trotter and MacDougall of this instinct and its importance in human behaviour.

The final chapters on the application of the genetic component in human variation to the betterment of mankind set out the aims and difficulties of human improvement much as they appear to us today. Galton appreciated the need for human diversity. He realized that Malthus' remedy for overpopulation, namely delayed marriage, would probably be dysgenic: this has been tentatively confirmed by the differential fertilities resulting from effective methods of birth control. His opinion that there is a limit to the improvement possible within a race—of lower animals or men—has been confirmed by much subsequent work on breeding for high yields of milk and eggs. Now, however, possible ways out of this difficulty are apparent: many present-day eugenicists would hold that eugenics could be effectively applied to any race of men and that there was no need to rely for improvement on the substitution of one race for another. Nevertheless such substitutions are occurring as much today as in Galton's time.

The Council's thanks are due to Professor L. S. Penrose and the Editor of the *Fortnightly Review* for permission to reprint the memoir originally published in that journal.

Mental Infirmary in Bornholm Island

DR. FREMMING's account of his investigation of the frequency of mental illnesses in Bornholm Island is published by the *Eugenics Society* as the seventh of their occasional papers. Knowledge of the frequency of a

disease is as important for its full understanding as a knowledge of its pathology and clinical features. Not until the incidence is known can satisfactory arrangements be planned for the treatment of a disease or a full understanding of its genetics and the eugenic problems it presents be reached.

There are several ways by which one may arrive at an estimate of the frequency of a disease. Dr. Fremming used the "biographical" method. He attempted to trace and interview all the people born in the island in the five-year period, 1883-7. This task has obviously been carried out with great thoroughness and persistence. Of 5,529 live-born individuals only 427 were untraced in that no adequate information was to be had about them; 40 had emigrated and 932 died before the age of ten years. This left 2,120 men and 2,010 women who were traced or about whom sufficient information was available from near relatives. The oldest men and women were 56 at the time of interview and allowance was made by Strömgren's method for the expectation that any of them would yet be affected by the conditions studied, or would have developed them if they had not first died. Strömgren's method consists in weighting each unaffected man or woman according to the fraction of the life-risk of developing the illness that they have passed. For schizophrenia the risk lies mainly between 15 and 45 years of age and so the total sample is not much reduced by such weighting; in manic-depressive insanity on the other hand the risk is still appreciable up to the age of 65, and so for this disease even the oldest men and women in this sample still have some years at risk and the weighted sample is much smaller.

Dr. Fremming's finding for schizophrenia was that the risk was a little less than 1 per cent for both sexes combined and rather higher for women than men. This agrees well with the results of other studies. For manic-depressive psychosis the risk was a little more than 1.5 per cent. This figure is much higher than that found by other investigators, probably because of the advantages of Dr. Fremming's biographical

method; for example, at the time of investigation only 1 of the 35 manic-depressives then alive was in a mental hospital and only 5 of them in a psychotic phase; 24 were working normally and might well have been missed by other methods of investigation. The total risk of psychoses was 4.2 per cent or 4.6 per cent if, with Dr. Fremming, one includes epilepsy among the psychoses; that is to say 1 individual in 25 is likely to suffer from psychosis before the age of 65. The incidence of other mental infirmities was: mental defect 1.3 per cent; psychopathy (minimum figure) 2.9 per cent; psychoneurosis 2.2 per cent. Obviously with this group of infirmities there is likely to be more variation in the investigator's standard of what should be included than with the psychoses; mental defect was assessed on social and psychiatric grounds rather than by mental testing.

It is natural to ask whether these figures for Bornholm would apply to other and larger populations such as that of England and Wales. In small populations there may be chance loss or accumulation of genes, but Bornholm is probably sufficiently large for this not to occur. The incidence in a closed community of abnormalities determined by recessive genes is independent of the amount of inbreeding, provided that this has been constant over a period of time; but this incidence is immediately affected by changes in the amount of inbreeding. Dr. Fremming notes that the proportion of known consanguineous marriages in his sample does not differ much from that in Denmark as a whole, but does not discuss whether the degree of relaxation of inbreeding is about the same in the population of Bornholm as in that of Denmark or England. There is little doubt that the amount of inbreeding has decreased sharply in the last two generations in England and Wales; the numbers of the population with those types of mental defect and psychosis which are due to recessive genes will be well below the equilibrium level and may be expected to rise. Perhaps the figures for England and Wales are somewhat lower than those for Bornholm

but there is no reason to suppose that the differences are large.

Dr. Fremming's concluding chapter on "Eugenic Considerations" will be of special interest to members of the *Society*. His conclusions on the value of voluntary sterilization, which would apply, of course, to any effective method of enabling the mentally infirm to restrict their families are that: "a thorough policy of sterilization of all mental defectives would appreciably reduce the number of such individuals in the community within a fairly short time. As regards the three major psychoses—schizophrenia, the manic-depressive psychosis and epilepsy—a policy of sterilization, however thorough, will not appreciably reduce the number of cases among subsequent generations. New predispositions constantly arise by mutation." These conclusions are possibly too hopeful for mental defect and too hopeless for psychoses. Mental defect is said to be "probably the outcome of a dominant as well as a recessive gene." This is much too simple. Three or four of the more serious types of mental defect are known to be due to recessive genes and one at least to a dominant gene; another is due to blood-group incompatibility; these types are rare. All that can be said of the great bulk of low-grade mental defect is that the frequency with which more than one child in a family is affected is much less than that required by any simple form of inheritance: probably numerous different genetic and environmental factors are concerned. The more common and less severe degrees of mental defect are also not simply inherited. The best hypothesis at the moment is that in most instances the multifactorial type of inheritance is concerned, as in the determination of most of the ordinary variations in intelligence. This being so it is too much to hope that a "reduction of about 30 per cent in two generations" would be achieved by sterilizing mental defectives. To achieve such a reduction it would be necessary also to get a reduction in the average family size of the dull and backward, the group next above the feeble-minded in intelligence; it might need the neutralization or reversal of differ-

ential fertility in general. Dr. Fremming's contrasting pessimism about the possibility of eugenics for the psychoses follows, perhaps, from his views as to the relation between mutations and the frequency of the conditions they cause. He quotes Kallman's estimate that at present 30 per cent of the children of schizophrenics are born after the first admission to hospital. Whatever the nature of the genes responsible, if this estimate is correct, any means by which the birth of these children was prevented would steadily, if perhaps slowly, reduce the incidence of schizophrenia. The ultimate extent of this reduction would largely depend on the amount by which the fertility of schizophrenics is already less than average and might well be considerable. But as Dr. Fremming indicates, large and rapid reduction in the incidence of genes predisposing to the psychoses will come only when those who will develop these conditions, or better still all those carrying predisposing genes, can be recognized at least as early as their marriage, and when they plan small families. Dr. Fremming notes that, apart from any question of eugenics, it is often desirable on social grounds that the mentally infirm should not have children.

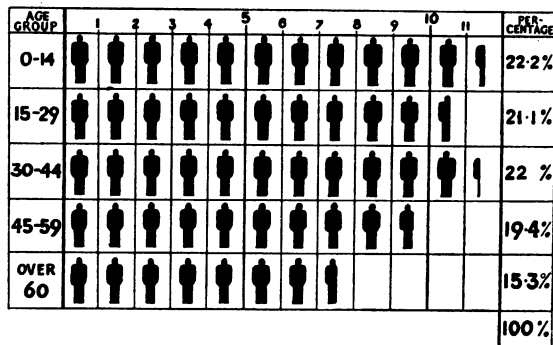
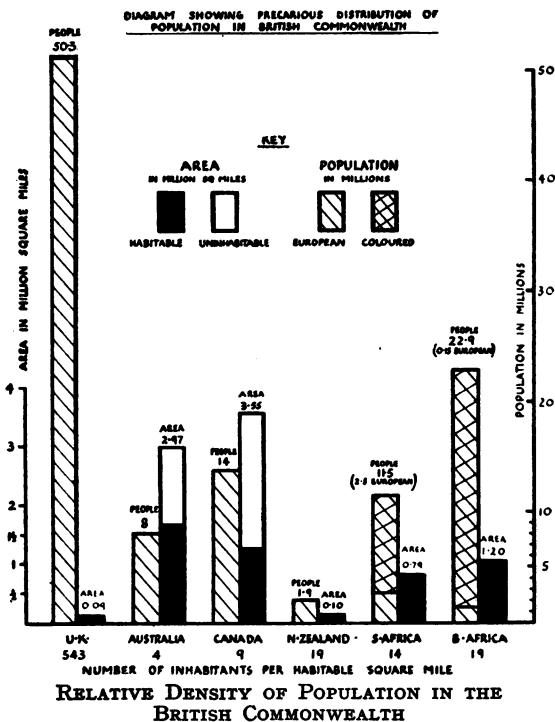
Dr. Abraham Stone's Appointment

READERS of the REVIEW will doubtless be aware of the Government of India's intention, recently expressed by Pandit Nehru, to make information on birth control available through that country's health services. India's Minister of Health is to be congratulated on his choice of an adviser. The Minister applied to the World Health Organization (WHO) for a consultant in family planning to advise on establishing a pilot study in the use of the "safe period" method of birth control. On October 20th Dr. Stone wrote:

WHO has graciously placed the assignment upon me. It was a challenging mission, and I could not elect but to accept it. I am leaving for Geneva tomorrow, and from there I shall go on to New Delhi.

Our congratulations and good wishes go to Dr. Stone on his important mission.

"Operation British Commonwealth"*

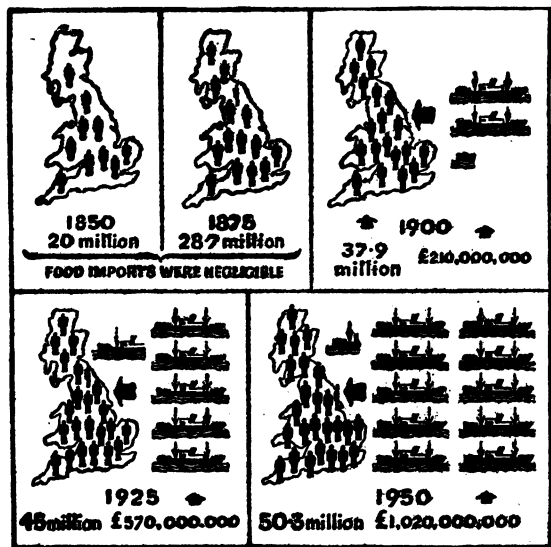


Each figure represents 1 million inhabitants. Clearly emigration must be by cross sections of population, and not young people only.

U.K. POPULATION IN AGE-GROUPS

"Population Index"

By courtesy of the editors of *Population Index* we reproduce below the diagram shown on the back page of the April 1951 number of that journal, published by the Office of Population Research, Princeton University, and the Population Association of America Inc.



THE FOOD IMPORT ASPECT OF THE POPULATION PROBLEM

*By courtesy of the Migration Council we reproduce here three diagrams which appear in their recent publication, *Operation British Commonwealth*. This pamphlet is obtainable from the Migration Council, Universal House, 60 Buckingham Palace Road, London, S.W.1.

